SOFTWARE EVALUATION USING QUANTITATIVE METHODS

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ABSTRACT

Evaluation of software is an ever-present reality. We present an ongoing project that evaluates different families of software using the Logic Scoring of Preference method. This method is very briefly presented and also some of the ongoing evaluation work is explained.

INTRODUCTION

To evaluate families of software such as programming languages, web browsers, operating systems, etc., is done to choose one particular software among several possibilities or simply to assert one piece of software against others.

There are several methods to do this evaluation ranging from the simpler form based on the personal opinion of evaluators, to the one that using the opinion of evaluators or users can construct a list of desired characteristics of the software and then analyse them against those characteristics, particularly assigning numerical values for the satisfiability of every desired characteristic for every software being evaluated. The result of this assignment can be a simple addition or more complex and sophisticated methods can be used.

One of them is the Logic Scoring of Preference, which is the method we have adopted, to evaluate different families of software: web browsers, web programming languages and others to

come. For more information on the method see [DUJ96], [DuBa97] and [DuEl82].

PAST, CURRENT AND FUTURE WORK

We have already used the method to evaluate web browsers [FDD00] and also web programming languages [PSDF03]. We have constructed a list of desired characteristics for both of these evaluations and then used the LSP method to aggregate them and obtain results.

In order to perform the evaluation more automatically two of the authors have constructed a tool that implements the LSP method [DFPS01].

Currently we are working in updating the evaluation already done –improving their Preference Tree amongst other things– as well as incorporating other systems from the same family of software to the evaluations.

We are considering in the future to incorporate other families of software as well as incorporating a votation scheme through the web to modify and update not only the values of each Preference but also the Preference Tree itself.

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